

**SERVO WRITING A DISK DRIVE BY SYNCHRONIZING A SERVO WRITE CLOCK  
IN RESPONSE TO A SYNC MARK RELIABILITY METRIC**

**ABSTRACT OF THE DISCLOSURE**

A method of writing product servo sectors to a disk of a disk drive is disclosed. A plurality of spiral tracks are written to the disk, wherein each spiral track comprises a high frequency signal interrupted at a predetermined interval by a sync mark. During the product servo writing process, the sync marks in the spiral tracks are detected and a sync mark reliability metric is generated, wherein the sync mark reliability metric represents a probability that the sync mark was detected accurately. A timing recovery measurement is generated in response to the detected sync marks and the sync mark reliability metrics. A servo write clock is synchronized in response to the timing recovery measurement and used to write the product servo sectors to the disk while servoing on the spiral tracks.